

Insects really feel pain, says new research

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New research shows that insects feel pain. The researchers say it isn't the same kind of pain that humans feel. The pain that insects feel is a sensation that is like pain. The research was conducted at the University of

Sydney in Australia. Professor Greg Neely, co-author of the research report, said: "People don't really think of insects as feeling any kind of pain, but it's already been shown in lots of different invertebrate animals that they can sense and avoid dangerous [things] that we [think of] as painful." He added: "We knew that insects could sense 'pain' but what we didn't know is that an injury could lead to long-lasting hyper-sensitivity...in a similar way to human patients' experiences."

The researchers looked at how fruit flies reacted to injuries. The scientists damaged one leg on fruit flies and allowed the leg to heal. They found that after the leg fully healed, the flies became more sensitive and tried harder to protect their legs. Professor Neely said the pain the flies felt stayed in their memory and this changed their behaviour. He said: "After the [insect] is hurt once badly, they are hypersensitive and try to protect themselves for the rest of their lives." Neely says he hopes to carry out more research to better understand how humans feel pain. He said: "We are focused on making new stem cell therapies or drugs that target the underlying cause and stop pain for good."

Sources: studyfinds.org / sciencedaily.org / sciencetimes.com

Writing

What are the three best ways of dealing with pain? Is pain useful?

Chat

Talk about these words from the article.

research / insects / pain / sensation / animals / dangerous / injury / human / patients / fruit flies / scientists / heal / leg / behaviour / memory / protect / stem cell / therapies

True / False

- Insects feel the same kind of pain as humans feel. T / F
- The research was conducted at a university in Austria. T / F
- The article mentioned animals that do not have a backbone. T / F
- Insects do not experience any form of long-lasting hyper-sensitivity. T / F
- Scientists damaged the legs of fruit flies to test whether they feel pain. T / F
- Flies were more sensitive after injuries and tried to protect injured parts. T / F
- The article said insects quickly lose their sensitivity after injuries. T / F
- A researcher hopes his work on insects will stop pain in humans. T / F

Synonym Match

(The words in **bold** are from the news article.)

- | | |
|---------------------|----------------|
| 1. kind | a. injured |
| 2. sensation | b. comparable |
| 3. conducted | c. reason |
| 4. animals | d. feeling |
| 5. similar | e. responded |
| 6. reacted | f. creatures |
| 7. healed | g. type |
| 8. hurt | h. medicines |
| 9. drugs | i. got better |
| 10. cause | j. carried out |

Discussion – Student A

- What kind of pain do you think insects feel?
- Do you harm or kill insects?
- When was the last time you were in pain?
- Has an insect ever caused you pain?
- What other feelings do insects have?
- How intelligent are insects?
- What are your favourite insects?
- How useful do you think this research is?

Phrase Match

- | | |
|--|---------------------------|
| 1. the same kind of pain that | a. to heal |
| 2. co-author of | b. hyper-sensitivity |
| 3. they can sense and | c. or drugs |
| 4. an injury could lead to long-lasting | d. humans feel |
| 5. in a similar | e. of their lives |
| 6. researchers looked at how fruit flies | f. avoid dangerous things |
| 7. allowed the leg | g. reacted to injuries |
| 8. the pain the flies felt stayed | h. way |
| 9. for the rest | i. in their memory |
| 10. making new stem cell therapies | j. the research |

Discussion – Student B

- What do you think about what you read?
- How bad is it to harm insects?
- Should people never kill insects?
- What are the scariest insects?
- Should scientists create drugs to stop insects' pain?
- What do you do when you feel pain?
- Will you care more for insects after reading this?
- What questions would you like to ask the researchers?

Spelling

- a oenntsias that is like pain
- co-utraoh of the research report
- dvaio dangerous things
- insects could sesne 'pain'
- in a msairil way
- human patients' prcexinsee
- how fruit flies reacted to sriunie
- the flies became more vsiiitnese
- tried harder to ctorpte their legs
- stayed in their mroyme
- pehraits or drugs
- arettg the underlying cause

Answers – Synonym Match

1. g	2. d	3. j	4. f	5. b
6. e	7. i	8. a	9. h	10. c

Role Play

Role A – Bees

You think bees are the best insects. Tell the others three reasons why. Tell them what is wrong with their insects. Also, tell the others which is the worst of these (and why): ants, worms or spiders.

Role B – Ants

You think ants are the best insects. Tell the others three reasons why. Tell them what is wrong with their insects. Also, tell the others which is the worst of these (and why): bees, worms or spiders.

Role C – Worms

You think worms are the best insects. Tell the others three reasons why. Tell them what is wrong with their insects. Also, tell the others which is the worst of these (and why): ants, bees or spiders.

Role D – Spiders

You think spiders are the best insects. Tell the others three reasons why. Tell them what is wrong with their insects. Also, tell the others which is the worst of these (and why): ants, worms or bees.

Speaking – Insects

Rank these with your partner. Put the best insects at the top. Change partners often and share your rankings.

- | | |
|---------------|----------------|
| • bees | • cockroaches |
| • fruit flies | • mosquitos |
| • ants | • grasshoppers |
| • worms | • butterflies |

Answers – True False

a	F	b	F	c	T	d	F	e	T	f	T	g	F	h	T
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Answers to Phrase Match and Spelling are in the text.